

# American Journal of Physiology: Regulatory, Integrative and Comparative Physiology

KEY TO CATEGORIES: 1. Comparative Physiology *Regulation and Integration in*; 2. Autonomic Physiology; 3. Behavior; 4. Cardiovascular Physiology; 5. Endocrinology; 6. Energetics; 7. Fluids and Electrolytes; 8. Functional Morphology; 9. Ingestion; 10. Periodicity; 11. Respiration; 12. Temperature

## No. 1. JULY 1994

### CATEGORY

- 1 Utilization of dipeptides by the caprine mammary gland for milk protein synthesis  
*F. R. C. Backwell, B. J. Bequette, D. Wilson, A. G. Calder, J. A. Metcalf,  
D. Wray-Cahen, J. C. MacRae, D. E. Beever, and G. E. Lobley* R1
- 5, 7, 9 Angiotensin II receptors in SFO but not in OVLT mediate isoproterenol-induced thirst  
*D. A. Pitts* R7
- 7, 8 Confocal microscopic analysis of fluorescein compartmentation within crab urinary bladder cells  
*D. S. Miller, D. M. Barnes, and J. B. Pritchard* R16
- 2, 3, 10 Fractal nature of short-term systolic BP and HR variability during lower body negative pressure  
*G. C. Butler, Y. Yamamoto, and R. L. Hughson* R26
- 4, 1 Phorbol ester-induced prostaglandin production in piglet cortical astroglia  
*C. R. Thore, M. Nam, and D. Busija* R34
- 2, 3, 7 Hypothalamic linkage in stress-induced hypocalemia, gastric damage, and emotional behavior in rats  
*S. Aou, J. Ma, T. Hori, and N. Tashiro* R38
- 2, 3, 9 Ingestive patterns of liver-denervated rats presented with several diets  
*L. L. Bellinger, G. Dula, and F. E. Williams* R44
- 3, 12, 5 Somnogenic effects of rabbit and recombinant human interferons in rabbits  
*M. Kimura, J. A. Majde, L. A. Toth, M. R. Opp, and J. M. Krueger* R53
- 4, 12 Temperature and pH effects on  $\text{Ca}^{2+}$  sensitivity of cardiac myofibrils: a comparison of trout with mammals  
*C. S. Churcott, C. D. Moyes, B. H. Bressler, K. M. Baldwin, and G. F. Tibbits* R62
- 12, 2, 3 24-Hour control of body temperature in rats. I. Integration of behavioral and autonomic effectors  
*C. J. Gordon* R71
- 7, 5, 4 Phosphaturic effect of parathyroid hormone in the spontaneously hypertensive rat  
*M. J. Onsgard-Meyer, T. J. Berndt, A. A. Khraibi, and F. G. Knox* R78
- 4, 2 Systemic and regional hemodynamics after nitric oxide synthase inhibition: role of a neurogenic mechanism  
*M. Huang, M. L. Leblanc, and R. L. Hester* R84
- 6 Glutamate metabolism in fetus and placenta of late-gestation sheep  
*R. R. Moores, Jr., P. R. Vaughn, F. C. Battaglia, P. V. Fennessey,  
R. B. Wilkening, and G. Meschia* R89
- 4, 1 Cardiovascular reflexes during abdominal ischemia in cats  
*H.-S. Huang and J. C. Longhurst* R97
- 5, 7  $\text{Na}^+$  transport and pH in principal cells of frog skin: effect of antidiuretic hormone  
*V. Lyall, T. S. Belcher, J. H. Miller, and T. U. L. Biber* R107
- 1, 2, 5  $\beta$ -Adrenergic control of lipolysis in primate white fat cells: a comparative study with nonprimate mammals  
*A. Bousquet-Mélou, J. Galitzky, C. Carpené, M. Lafontan, and M. Berlan* R115
- 4, 5, 8 Effect of chronic ANG I-converting enzyme inhibition on aging processes.  
II. Large arteries  
*J. B. Michel, D. Heudes, O. Michel, P. Poitevin, M. Philippe, E. Scalbert,  
B. Corman, and B. I. Levy* R124

4	Effect of chronic ANG I-converting enzyme inhibition on aging processes.	
	III. Endothelial function of mesenteric arterial bed of rat	
	<i>J. Atkinson, R. Tatchum-Talom, and B. Corman</i>	R136
1, 5, 12	Characterization and postnatal development of 5'-deiodinase activity in goat perirenal fat	
	<i>F. Nicol, H. Lefranc, J. R. Arthur, and P. Trayhurn</i>	R144
9, 3, 6	Effect of postgastric energy loads on intake of sham meals of different palatability in rats	
	<i>D. Rigaud, D. Betoulle, A. Chauvel, L. A. Alberto, and M. Apfelbaum</i>	R150
7, 9	Fasting alters basal and stimulated ion transport in piglet jejunum	
	<i>H. V. Carey, U. L. Hayden, and K. E. Tucker</i>	R156
5, 2	Temporal cascade of plasma level surges in ACTH, corticosterone, and cytokines in endotoxin-challenged rats	
	<i>L. Givalois, J. Dornand, M. Mekaouche, M. D. Solier, A. F. Bristow, G. Izart, P. Siaud, I. Assenmacher, and G. Barbanel</i>	R164
3, 7, 9	Peripheral angiotensin causes salt appetite in rats	
	<i>R. L. Thunhorst and D. A. Fitts</i>	R171
9, 3, 5	Modulation of food intake by peripherally administered amylin	
	<i>J. E. Morley, J. F. Flood, M. Horowitz, P. M. K. Morley, and M. J. Walter</i>	R178
5, 6, 3	Interactive effects of food deprivation and exercise on reproductive function in female hamsters	
	<i>J. B. Powers, A. E. Jetton, and G. N. Wade</i>	R185
3, 10	Photoperiodic time measurement in Djungarian hamsters evaluated from T-cycle studies	
	<i>W. Puchalski and G. R. Lynch</i>	R191
5, 10	Validation of deconvolution analysis of LH secretion and half-life	
	<i>T. Mulligan, H. A. Delemarre-Van De Waal, M. L. Johnson, and J. D. Veldhuis</i>	R202
2, 5	Regulation of the adrenomedullary catecholaminergic system after mild, acute stress	
	<i>K. Betito, J. B. Mitchell, S. Bhatnagar, P. Boksa, and M. J. Meaney</i>	R212
1, 5	Measurement of plasma protein synthesis rate in infant pig: an investigation of alternative tracer approaches	
	<i>F. Jahoor, D. G. Burrin, P. J. Reeds, and M. Frazer</i>	R221
4, 2	SIN-1 reverses attenuation of hypercapnic cerebrovasodilation by nitric oxide synthase inhibitors	
	<i>C. Iadecola, F. Zhang, and X. Xu</i>	R228
5, 8	Glucose uptake and GLUT-4 protein distribution in skeletal muscle of the obese Zucker rat	
	<i>J. T. Brozinick, Jr., G. J. Etgen, Jr., B. B. Yaspelkis III, and J. L. Ivy</i>	R236
4, 5, 7	The relationship between renin isoelectric forms and renin glycoforms	
	<i>S. A. Katz, J. A. Opsahl, P. A. Abraham, and M. J. Gardner</i>	R244
4, 7	Direct measurement of renal medullary blood flow in the dog	
	<i>D. M. Strick, M. J. Fiksen-Olsen, J. C. Lockhart, R. J. Roman, and J. C. Romero</i>	R253
7, 4	Characterization of the urea transporter in outer medullary descending vasa recta	
	<i>T. L. Pallone</i>	R260
1, 4	Hepatic vascular response to anaphylaxis in isolated canine liver	
	<i>Y. Yamaguchi, T. Shibamoto, T. Hayashi, Y. Saeki, and S. Tanaka</i>	R268
2, 12	Hypothalamic network for thermoregulatory shivering	
	<i>K. Kanosue, Y.-H. Zhang, M. Yanase-Fujiwara, and T. Hosono</i>	R275
2, 4, 12	Hypothalamic network for thermoregulatory vasomotor control	
	<i>K. Kanosue, M. Yanase-Fujiwara, and T. Hosono</i>	R283
1, 12, 2	EP <sub>1</sub> -receptor mediation of prostaglandin E <sub>2</sub> -induced hyperthermia in rats	
	<i>T. Oka and T. Hori</i>	R289
7, 5	Renal responses to parathyroid hormone in young chickens	
	<i>J. Q. Feng and N. B. Clark</i>	R295
9, 3, 2	Pharmacological dissociation of responses to CCK and gastric loads in rat mechanosensitive vagal afferents	
	<i>G. J. Schwartz, P. R. McHugh, and T. H. Moran</i>	R303

- 4, 2 Pressor response from rostral dorsomedial medulla is mediated by excitatory amino acid receptors in rostral VLM  
*Y. Hirooka, J. W. Polson, and R. A. L. Dampney* R309
- 5, 8 Interactive effects of growth hormone and exercise on muscle mass in suspended rats  
*R. E. Grindeland, R. R. Roy, V. R. Edgerton, E. J. Grossman, V. R. Mukku, B. Jiang, D. J. Pierotti, and I. Rudolph* R316
- 2, 5, 12 Reduced febrile responses to pyrogens after lesions of the hypothalamic paraventricular nucleus  
*T. Horn, M. F. Wilkinson, R. Landgraf, and Q. J. Pittman* R323
- 12 Altered interleukin-1 and tumor necrosis factor production and secretion during pyrogenic tolerance to LPS in rabbits  
*G. Wakabayashi, J. G. Cannon, J. A. Gelfand, B. D. Clark, K. Aiura, J. F. Burke, S. M. Wolff, and C. A. Dinarello* R329
- 5, 2, 4 Corticotropin-releasing hormone but not glutamate elicits hormonal responses from the parabrachial region in cats  
*D. E. Carlson, A. M. Nabavian, and D. S. Gann* R337

---

#### RAPID COMMUNICATION

- 12, 11, 3 Interactions between cellular respiration and thermoregulation in the paramecium  
*G. M. Malvin, P. Havlen, and C. Baldwin* R349

---

#### LETTERS TO THE EDITOR

- 4, 7 Fetomaternal transfusions  
*J. J. Faber; J. Štulc and B. Štulpová* R353

### No. 2. AUGUST 1994

#### CATEGORY

- 12 Thermal signals in control of selective brain cooling  
*G. Kuhnen and C. Jessen* R355
- 3, 10, 5 *N*-methyl-D-aspartate induces phase shifts in circadian rhythm of neuronal activity of rat SCN in vitro  
*S. Shibata, A. Watanabe, T. Hamada, M. Ono, and S. Watanabe* R360
- 5 Resistance exercise and growth hormone as countermeasures for skeletal muscle atrophy in hindlimb-suspended rats  
*J. K. Linderman, K. L. Gosselink, F. W. Booth, V. R. Mukku, and R. E. Grindeland* R365
- 7, 2, 4 Reduced renal sympathoinhibition in response to acute volume expansion in diabetic rats  
*K. P. Patel and P. L. Zhang* R372
- 4, 5 Regulation of atrial natriuretic factor release by endothelin in ovine fetuses  
*C. Y. Cheung* R380
- 2, 4, 10 Differential relationships among the 10-Hz rhythmic discharges of sympathetic nerves with different targets  
*G. L. Gebber, S. Zhong, S. M. Barman, Y. Paitel, and H. S. Orer* R387
- 2, 4, 10 Coordination of the cardiac-related discharges of sympathetic nerves with different targets  
*G. L. Gebber, S. Zhong, S. M. Barman, and H. S. Orer* R400
- 6 Exercise-induced <sup>31</sup>P-NMR metabolic response of human wrist flexor muscles during partial neuromuscular blockade  
*M. Mizuno, A. Horn, N. H. Secher, and B. Quistorff* R408
- 5, 1 Developmental changes in plasma thiol-disulfide turnover in rats: a multicompartmental approach  
*M. Ookhtens and A. V. Mittur* R415
- 7 Taurine, betaine, and inositol share a volume-sensitive transporter in skate erythrocyte cell membrane  
*L. Goldstein and E. M. Davis* R426

- 5, 1 Downregulation of corticosteroid receptors in gills of coho salmon due to stress and cortisol treatment  
*J. M. Shrimpton and D. J. Randall* R432
- 6 Aging and exercise training in skeletal muscle: responses of glutathione and antioxidant enzyme systems  
*C. Leeuwenburgh, R. Fiebig, R. Chandwaney, and L. L. Ji* R439
- 6 TNF- $\alpha$  and IL-6 expression in perfused rat liver after intraportal candidemia vs. *E. coli* or *S. aureus* bacteremia  
*G. M. Matuschak, C. Munoz, N. A. Epperly, R. S. Britton, D. Walsh, D. R. Schilly, T. L. Tredway, T. A. Khan, B. R. Bacon, and A. J. Lechner* R446
- 7, 4 Control of sodium and chloride transport in the thick ascending limb in the avian nephron  
*E. Osono and H. Nishimura* R455
- 5 Glucocorticoid negative feedback in sheep corticotrophs: a comparison with AtT-20 corticotroph tumor cells  
*T. P. Clark and R. J. Kemppainen* R463
- 3, 7, 9 Voluntary intake of calcium and other minerals by rats  
*M. G. Tordoff* R470
- 4, 2 Aortic baroreceptors play a predominant role in the regulation of hindlimb vascular resistance in rats  
*B. H. Machado, L. G. H. Bonagamba, J. A. Castania, and J. V. Menani* R476
- 1, 3, 8 Modeling red muscle power output during steady and unsteady swimming in largemouth bass  
*T. P. Johnson, D. A. Syme, B. C. Jayne, G. V. Lauder, and A. F. Bennett* R481
- 4 Plasma-derived serum from hypertensive rats differentially increases growth of cultured arteriolar smooth muscle  
*H. W. Overbeck and R. K. Dubey* R489
- 3, 6, 12 Reduced glucose availability induces torpor in Siberian hamsters  
*J. Dark, D. R. Miller, and I. Zucker* R496
- 1 Comparative studies on tryptophan binding to hepatic nuclear envelopes in Sprague-Dawley and Lewis rats  
*H. Sidransky and E. Verney* R502
- 2, 4 Role of the pons in the carotid sympathetic chemoreflex  
*N. Koshiya and P. G. Guyenet* R508
- 2, 4 A5 noradrenergic neurons and the carotid sympathetic chemoreflex  
*N. Koshiya and P. G. Guyenet* R519
- 2, 5, 9 Diet cycling and age alter weight gain and insulin levels in rats  
*B. E. Levin* R527
- 1, 4, 7 Effects of gonadectomy on sexually dimorphic antidiuretic action of vasopressin in conscious rats  
*Y.-X. Wang, J. T. Crofton, H. Liu, D. P. Brooks, and L. Share* R536
- 5, 12 Control of red cell function of late chick embryos: role of extracellular ATP/AMP and egg size  
*M. Koller, S. Dragon, and R. Baumann* R542
- 4, 7 Increased endothelium-dependent renal vasodilation in cirrhotic rats  
*J. García-Estañ, N. M. Atucha, J. M. Sabio, F. Vargas, T. Quesada, and J. C. Romero* R549
- 7, 10, 9 What is responsible for the diurnal variation in potassium excretion?  
*A. Steele, H. deVeber, S. E. Quaggin, A. Scheich, J. Ethier, and M. L. Halperin* R554
- 1, 2, 9 Intestinal capsaicin transiently attenuates suppression of sham feeding by oleate  
*C. S. Tamura and R. C. Ritter* R561
- 1, 2, 4 Regulation of central vascular blood flow in the turtle  
*S. G. Comeau and J. W. Hicks* R569
- 7 Altered renal P-450 metabolism of arachidonic acid in Dahl salt-sensitive rats  
*Y.-H. Ma, M. L. Schwartzman, and R. J. Roman* R579
- 1, 4, 11 Anoxia and adenosine induce increased cerebral blood flow rate in crucian carp  
*G. E. Nilsson, P. Hylland, and C. O. Löfman* R590

- 10, 5, 6 Day length affects immune cell numbers in deer mice: interactions with age, sex, and prenatal photoperiod  
J. M. C. Blom, J. M. Gerber, and R. J. Nelson R596
- 5 Histamine H<sub>2</sub> receptors and histidine decarboxylase in normal and leukemic human monocytes and macrophages  
L. Mirossay, E. Chastre, J. Callebert, J.-M. Launay, B. Housset, A. Zimmer, J.-P. Abita, and C. Gespach R602

#### RAPID COMMUNICATIONS

- 9, 6, 3 L-Ethionine, an amino acid analogue, stimulates eating in rats  
N. E. Rawson, P. M. Ulrich, and M. I. Friedman R612
- 9, 3, 5 2-Deoxy-D-glucose suppresses food intake through activation of hypothalamic histamine in rats  
T. Sakata, Y. Tamari, M. Kang, and H. Yoshimatsu R616

#### No. 3. SEPTEMBER 1994

##### CATEGORY

- 3, 2 Cardiovascular responses to hemorrhage during acute and chronic hypoxia  
T. C. Resta, R. D. Russ, M. P. Doyle, J. M. Martinez, and B. R. Walker R619
- 4, 5, 7 Dopamine DA<sub>1</sub> receptors on vascular smooth muscle cells are regulated by glucocorticoid and sodium chloride  
K. Yasunari, M. Kohno, K. Yokokawa, T. Horio, and T. Takeda R628
- 4, 5 Phosphoinositide turnover signaling stimulated by ET-3 in endothelial cells from spontaneously hypertensive rats  
K. Yokokawa, J. Johnson, M. Kohno, A. K. Mandal, M. Yanagisawa, T. Horio, K. Yasunari, and T. Takeda R635
- 8, 9, 10 Opioid growth factor inhibits DNA synthesis in mouse tongue epithelium in a circadian rhythm-dependent manner  
I. S. Zagon, Y. Wu, and P. J. McLaughlin R645
- 4, 5, 7 The effect of intracarotid vasopressin infusion on ACTH release in neurohypophysectomized, conscious dogs  
H. Raff, P. E. Papanek, J.-F. Liard, and A. W. Cowley, Jr. R653
- 1, 5 Time course of adaptation to a high-fat diet in obesity-resistant and obesity-prone rats  
M. J. Pagliassotti, S. M. Knobel, K. A. Shahrokhi, A. M. Manzo, and J. O. Hill R659
- 3, 4, 5 Central and systemic  $\kappa$ -opioid agonists exacerbate neurobehavioral response to brain injury in rats  
T. K. McIntosh, S. Fernyak, I. Yamakami, and A. I. Faden R665
- 1, 5, 12 Effects of estrogen on thermoregulatory evaporation in rats exposed to heat  
M. A. Baker, D. D. Dawson, C. E. Peters, and A. M. Walker R673
- 4, 5, 2 Nonuniform enhancement of baroreflex sensitivity by atrial natriuretic peptide in conscious rats and dogs  
R. L. Woods, C.-A. Courneya, and G. A. Head R678
- 4 Effect of chronic ANG I-converting enzyme inhibition on aging processes. IV. Cerebral blood flow regulation  
I. Lartaud, T. Makki, L. Bray-des-Boscs, N. Niederhoffer, J. Atkinson, B. Corman, and C. Capdeville-Atkinson R687
- 7 Nocodazole inhibition of organic anion secretion in teleost renal proximal tubules  
D. S. Miller and J. B. Pritchard R695
- 2, 5, 12 Central effects of glucocorticoid receptor antagonist RU-38486 on lipopolysaccharide and stress-induced fever  
J. L. McClellan, J. J. Klir, L. E. Morrow, and M. J. Kluger R705
- 2, 6 Serotonergic activity is depressed in the ventromedial hypothalamic nucleus of 12-day-old obese Zucker rats  
V. H. Routh, J. S. Stern, and B. A. Horwitz R712



- 4, 11, 6 Calf muscle cross-sectional area and peak oxygen uptake and work rate in children and adults  
*S. Zanconato, G. Riedy, and D. M. Cooper* R720
- 1, 8, 6 Skeletal development in newborn and weanling northern elephant seals  
*P. Patterson-Buckendahl, S. H. Adams, R. Morales, W. S. S. Jee, C. E. Cann, and C. L. Ortiz* R726
- 4 Soleus muscle contractile properties in hypertensive rats  
*S. D. Gray, R. C. Carlsen, and J. Deng* R735
- 4 Effect of chronic blood pressure reduction on soleus muscle contractile properties in spontaneously hypertensive rats  
*S. D. Gray, R. C. Carlsen, and R. Atherley* R740
- 2, 4, 12 Parasympathetic-mediated reflex salivation and vasodilatation in the cat submandibular gland  
*H. Izumi and K. Karita* R747
- 4 Plasma potassium may protect sodium pumps of toad hearts from an endogenous inhibitor  
*P. L. Else* R754
- 4, 5 Effect of median eminence lesion on the hypertensive response due to acute aortic coarctation  
*J. B. Fregoneze, M. C. O. Salgado, and H. C. Salgado* R762
- 1, 4 N-acetyl-L-cysteine potentiates depressor response to captopril and enalaprilat in SHRa  
*F. J. Ruiz, M. G. Salom, A. C. Inglés, T. Quesada, E. Vicente, and L. F. Carbonell* R767
- 1 Two pathways for choline transport in eel erythrocytes: a saturable carrier and a volume-activated channel  
*S. E. Joyner and K. Kirk* R773
- 4 Effect of pregnancy on pressure-volume relationships in circulation of rabbits  
*P. W. Humphreys and N. Joels* R780
- 5 Differential regulation of central vasopressin in transgenic rats harboring the mouse *Ren-2* gene  
*A. Moriguchi, C. M. Ferrario, K. B. Brosnihan, D. Ganten, and M. Morris* R786
- 7, 9 Comparison of Fos-like immunoreactivity induced in rat brain by central injection of angiotensin II and carbachol  
*N. E. Rowland, B.-H. Li, A. K. Rozelle, and G. C. Smith* R792
- 5, 6, 9 Corticosterone-responsive and -unresponsive metabolic characteristics of adrenalectomized rats  
*C. R. Hamelink, P. J. Currie, J. W. Chambers, T. W. Castonguay, and D. V. Coscina* R799
- 4, 8 Arterial mechanics in the fin whale suggest a unique hemodynamic design  
*R. E. Shadwick and J. M. Gosline* R805
- 12, 10 Circadian rhythm of heat production, heart rate, and skin and core temperature under unmasking conditions in men  
*K. Kräuchi and A. Wirz-Justice* R819
- 2 Frequency characteristics of sympathetic nerve discharge in anesthetized rats  
*M. J. Kenney* R830
- 3, 9, 5 CCK/gastrin-like immunoreactivity in brain and gut, and CCK suppression of feeding in goldfish  
*B. A. Himick and R. E. Peter* R841

---

#### RAPID COMMUNICATIONS

- 5, 3 Rapid effect on suckling of an oxytocin antisense oligonucleotide administered into rat supraoptic nucleus  
*I. Neumann, D. W. F. Porter, R. Landgraf, and Q. J. Pittman* R852
- 2, 4 Cardiovascular activation by serotonergic stimulation: role of corticotropin-releasing factor  
*A. Dedeoğlu and L. A. Fisher* R859

## INVITED REVIEW

- 4, 5, 7 Bridging the gap between physiology and molecular biology: new approaches to perpetual questions  
V. F. Norwood and R. A. Gomez R865
- 
- 1 Pre- and postnatal effects of photoperiod on collared lemmings (*Dicrostonyx groenlandicus*)  
B. A. Gower, T. R. Nagy, and M. H. Stetson R879
- 5 Interactions between effects of W-7, insulin, and hypoxia on glucose transport in skeletal muscle  
J. H. Youn, E. A. Gulve, E. J. Henriksen, and J. O. Holloszy R888
- 1, 11, 6 Acute blockage of the ubiquitin-mediated proteolytic pathway during invertebrate quiescence  
T. J. Anchordoguy and S. C. Hand R895
- 9, 3, 5 Cholecystokinin suppresses food intake by a nonendocrine mechanism in rats  
R. D. Reidelberger, G. Varga, R.-M. Liehr, D. A. Castellanos, G. L. Rosenquist, H. C. Wong, and J. H. Walsh R901
- 2, 4, 5 The exercise pressor reflex is attenuated by intrathecal oxytocin  
C. L. Stebbins and A. Ortiz-Acevedo R909
- 4, 5, 7 Perinuclear zone and diagonal band lesions enhance angiotensin responses of rat supraoptic neurons  
J. T. Cunningham, R. Nissen, and L. P. Renaud R916
- 4, 5, 8 Increased plasma osmolality stimulates peripheral and central vasopressin release in male and female rats  
M. Ota, J. T. Crofton, H. Liu, G. Festavan, and L. Share R923
- 12, 3 Temperature regulation in mice during withdrawal from ethanol dependence  
L. I. Crawshaw, C. S. O'Connor, J. C. Crabbe, and D. L. Hayteas R929
- 2, 4 Differential drives from rostral ventrolateral medullary neurons to three identified sympathetic outflows  
R. M. McAllen and C. N. May R935
- 1, 10, 12 Constant light suppresses sleep and circadian rhythms in pigeons without consequent sleep rebound in darkness  
R. J. Berger and N. H. Phillips R945
- 2, 4, 7 Hemodynamics and baroreflex function in rats with nephrotic syndrome  
C. Hinojosa-Laborde, S. Y. Jones, and G. F. DiBona R953
- 2, 4, 5 Chronic nucleus tractus solitarius lesions do not prevent hypovolemia-induced vasopressin secretion in rats  
A. M. Schreihofer, E. M. Stricker, and A. F. Sved R965
- 2, 4, 11 Organization of vestibular inputs to nucleus tractus solitarius and adjacent structures in cat brain stem  
B. J. Yates, L. Grélot, I. A. Kerman, C. D. Balaban, J. Jakuš, and A. D. Miller R974
- 5, 4 Effect of atrial natriuretic factor on release of arginine vasopressin and renin in fetal lambs  
D. D. Berry, R. K. Jaekle, and J. C. Rose R984
- 7, 4 Ontogenic changes in renal response to  $\alpha_1$ -adrenoceptor stimulation in sheep  
E. N. Guillery, J. L. Segar, D. C. Merrill, K. T. Nakamura, P. A. Jose, and J. E. Robillard R990
- 12, 2, 6 The uncoupling protein thermogenin during acclimation: indications for pretranslational control  
A. Jacobsson, M. Mühleisen, B. Cannon, and J. Nedergaard R999
- 2, 4, 10 Basis for differential coupling between rhythmic discharges of sympathetic efferent nerves  
B. Kocsis R1008

5, 4	Cytokine-induced expression of nitric oxide synthase in C2C12 skeletal muscle myocytes <i>G. Williams, T. Brown, L. Becker, M. Prager, and B. P. Giroir</i>	R1020
7, 9	cGMP and $Ca^{2+}$ regulation of ion transport across the isolated porcine distal colon epithelium <i>M. D. DuVall and S. M. O'Grady</i>	R1026
1, 5	Role of the atrial natriuretic peptide for adrenal regulation in the teleost fish <i>Cyprinus carpio</i> <i>W. Kloas, M. Reinecke, and W. Hanke</i>	R1034
4, 7, 9	Effects of sinoaortic baroreceptor denervation on depletion-induced salt appetite <i>R. L. Thunhorst, S. J. Lewis, and A. K. Johnson</i>	R1043
4, 5, 7	Role of nitric oxide in the renal hemodynamic response to a meat meal <i>F. J. Salazar, A. Alberola, T. Nakamura, and J. P. Granger</i>	R1050
9, 6, 3	Synergistic effect of rhTNF- $\alpha$ and rhIL-1 $\alpha$ in inducing anorexia in rats <i>Z.-J. Yang, M. Koseki, M. M. Meguid, J. R. Gleason, and D. Debonis</i>	R1056
1, 2, 4	Both NMDA and non-NMDA receptors in the NTS participate in the baroreceptor reflex in rats <i>H. Ohta and W. T. Talman</i>	R1065
2, 5	Involvement of capsaicin-sensitive nerves in regulation of insulin secretion and glucose tolerance in conscious mice <i>S. Karlsson, A. J. W. Scheurink, A. B. Steffens, and B. Åhrén</i>	R1071
1, 12	Freeze tolerance in turtles: visual analysis by microscopy and magnetic resonance imaging <i>B. Rubinsky, J.-S. Hong, and K. B. Storey</i>	R1078
5, 7, 12	Hypothalamic thermal stimulation modulates vasopressin release in hyperosmotically stimulated rabbits <i>R. Keil, R. Gerstberger, and E. Simon</i>	R1089
6, 3, 1	Exercise physiology of wild and random-bred laboratory house mice and their reciprocal hybrids <i>M. R. Dohm, C. S. Richardson, and T. Garland, Jr.</i>	R1098
7, 4	$Na^+$ - $K^+$ -ATPase inhibition sensitizes renal mechanoreceptors activated by increases in renal pelvic pressure <i>U. C. Kopp, L. A. Smith, and A. L. Pence</i>	R1109
3, 11	A functional model of the circadian system based on the degree of intercommunication in a complex system <i>A. Díez-Noguera</i>	R1118

---

#### SPECIAL COMMUNICATION

3, 7, 9	A method for selective section of vagal afferent or efferent axons in the rat <i>R. Norgren and G. P. Smith</i>	R1136
---------	--	-------

---

#### RAPID COMMUNICATIONS

2, 4, 5	Initiation of rat vasopressin cell responses to simulated hypotensive hemorrhage <i>S. Khanna, J. R. Sibbald, D. W. Smith, and T. A. Day</i>	R1142
1, 12	LDH-B enzyme expression: the mechanisms of altered gene expression in acclimation and evolutionary adaptation <i>J. A. Segal and D. L. Crawford</i>	R1150
11, 4, 2	Ventral medullary surface activity during sleep, waking, and anesthetic states in the goat <i>D. M. Rector, D. Gozal, H. V. Forster, P. J. Ohtake, L. G. Pan, T. F. Lowry, and R. M. Harper</i>	R1154

---

#### ANNOUNCEMENTS

R1161



CATEGORY

- 2 Effect of caloric content and composition of a liquid meal on gastric emptying in the rat  
*L. L. Maerz, H. Sankaran, S. J. Scharpf, and C. W. Deveney* R1163
- 3, 5, 7 Endocrine changes associated with a rapidly developing sodium appetite in rats  
*R. L. Thunhorst, M. Morris, and A. K. Johnson* R1168
- 1, 4, 5 Novel angiotensin receptor subtypes in fowl  
*H. Nishimura, O. E. Walker, C. M. Patton, A. B. Madison, A. T. Chiu, and J. Keiser* R1174
- 4 Relationship between strength of short-term systemic autoregulation and initial resistance  
*R. Burattini, P. Borgdorff, and N. Westerhof* R1182
- 4, 7 Thromboxane A<sub>2</sub>-prostaglandin H<sub>2</sub> and renovascular hypertension in rats  
*E. H. Boussairi, J. Sacquet, J. Sassard, and D. Benzoni* R1190
- 1, 5 Frog glomerular vasotocin receptors resemble mammalian V<sub>1b</sub> receptors  
*A. Ammar, R. M. Rajerison, S. Roseau, M. Bloch-Faure, and D. Butlen* R1198
- 1, 6 Exercise-induced changes in blood composition of racing reindeer (*Rangifer tarandus* L.)  
*A. R. Pösö, M. Nieminen, S. Sankari, and T. Soveri* R1209
- 4, 7 Prolonged stimulation of intrarenal V<sub>1</sub> vasopressin receptors results in sustained hypertension  
*E. Szczepanska-Sadowska, K. Stepniakowski, M. M. Skelton, and A. W. Cowley, Jr.* R1217
- 1, 6 Muscle glucose utilization during sustained swimming in the carp (*Cyprinus carpio*)  
*T. G. West, C. J. Brauner, and P. W. Hochachka* R1226
- 4, 2, 5 Thromboxane A<sub>2</sub> receptor antagonism prevents hormonal and cardiovascular responses to mineral acid infusion  
*T. A. Cudd and C. E. Wood* R1235
- 2, 3, 4 Sympathetic nervous activity and arterial blood pressure control in conscious rat during rest and behavioral stress  
*D. C. Randall, D. R. Brown, L. V. Brown, and J. M. Kilgore* R1241
- 4, 5, 10 Circadian and estrous cycle-dependent variations in blood pressure and heart rate in female rats  
*H. Takezawa, H. Hayashi, H. Sano, H. Saito, and S. Ebihara* R1250
- 2, 3, 9 Ingestion, gastric fill, and gastric emptying before and after withdrawal of gastric contents  
*J. M. Kaplan, W. Siemers, and H. J. Grill* R1257
- 2, 5, 12 Thermoregulatory responses to hyperinsulinemic hypoglycemia and euglycemia in humans  
*D. G. Maggs, A. R. Scott, and I. A. Macdonald* R1266
- 1, 4, 7 Preferential incorporation of sn-2 lysoPC DHA over unesterified DHA in the young rat brain  
*F. Thiès, C. Pillon, P. Molière, M. Lagarde, and J. Lecerf* R1273
- 5, 6 Effect of acute ethanol intoxication on glucoregulation during prolonged insulin-induced hypoglycemia  
*P. E. Molina, K. Jabbour, P. Williams, and N. N. Abumrad* R1280
- 4, 5, 7 Lack of increase in platelet Ca<sup>2+</sup> and Na<sup>+</sup> in deoxycorticosterone acetate-salt hypertensive rats  
*M. Ishida, T. Ishida, H. Matsuura, R. Ozono, G. Kajiyama, and T. Oshima* R1288
- 1, 4, 11 Developmental changes in cardiorespiratory patterns of sleep-associated apnea in northern elephant seals  
*M. A. Castellini, L. D. Rea, J. L. Sanders, J. M. Castellini, and T. Zenteno-Savin* R1294
- 1, 5 A specific role for TRH in release of diacetyl  $\alpha$ -MSH in tilapia stressed by acid water  
*A. E. Lamers, G. Flik, and S. E. Wendelaar Bonga* R1302

- 2, 9, 10** Long-term perfusion of the cerebroventricular system of dogs without leakage to the peripheral circulation  
*S. Nitecki, R. Karmeli, G. J. Harty, C. Kamei, T. L. Yaksh, and J. H. Szurszewski* R1309
- 2, 4, 6** Effects of chronic lard feeding on sympathetic nervous system activity in the rat  
*J. B. Young, P. A. Daly, K. Uemura, and F. Chaouloff* R1320
- 2, 5** Effects of fat feeding on epinephrine secretion in the rat  
*K. Uemura and J. B. Young* R1329
- 4, 5, 7** Sodium deprivation blunts hypovolemia-induced pituitary secretion of vasopressin and oxytocin in rats  
*E. M. Stricker, A. M. Schreihöfer, and J. G. Verbalis* R1336
- 4, 5, 7** Chronic physiological increases in cortisol inhibit the vasopressin response to hypertonicity in conscious dogs  
*P. E. Papanek and H. Raff* R1342
- 2, 4, 5** Intracerebroventricular insulin produces nonuniform regional increases in sympathetic nerve activity  
*M. S. Muntzel, D. A. Morgan, A. L. Mark, and A. K. Johnson* R1350
- 1, 5, 7** Stannocalcin stimulates phosphate reabsorption by flounder renal proximal tubule in primary culture  
*M. Lu, G. F. Wagner, and J. L. Renfro* R1356
- 1, 7** Hyperosmolality and sperm storage in hibernating bats: prolongation of sperm life by dehydration  
*E. G. Crichton, B. T. Hinton, T. L. Pallone, and R. H. Hammerstedt* R1363
- 11, 1** Differential control of ventilation among inbred strains of mice  
*C. G. Tankersley, R. S. Fitzgerald, and S. R. Kleeberger* R1371
- 2, 4** Sympathetic activity and blood pressure are tightly coupled at 0.4 Hz in conscious rats  
*D. R. Brown, L. V. Brown, A. Patwardhan, and D. C. Randall* R1378
- 3, 9, 10** Circadian rhythm of serum and lymph apolipoprotein AIV in ad libitum-fed and fasted rats  
*K. Fukagawa, H.-M. Gou, R. Wolf, and P. Tso* R1385
- 5, 8, 1** Alteration in IGF-I mRNA content of fetal swine tissues in response to maternal diabetes  
*T. G. Ramsay, C. K. Wolverson, and N. C. Steele* R1391
- 2, 4** Alterations of synaptic transmission in sympathetic ganglia of spontaneously hypertensive rats  
*J. C. Magee and G. G. Schofield* R1397
- 1, 5** Insulin and insulin-like growth factor I in coho salmon *Oncorhynchus kisutch* injected with streptozotocin  
*E. M. Plisetskaya and C. Duan* R1408
- 7, 4, 5** Metabolic clearance of atrial natriuretic factor in ovine pregnancy  
*S. Mukaddam-Daheer, J. Gutkowska, B. S. Nuwayhid, and E. W. Quillen, Jr.* R1413
- 4, 5** Substance P, calcitonin gene-related peptide, and capsaicin release serotonin from cerebrovascular mast cells  
*A.-M. Reynier-Rebuffel, P. Mathiau, J. Callebort, V. Dimitriadou, N. Farjaudon, K. Kacem, J.-M. Launay, J. Seylaz, and P. Aubineau* R1421

## No. 6. DECEMBER 1994

### CATEGORY

- 12** Tumor necrosis factor- $\alpha$  and fever after peripheral inflammation in the rat  
*A. L. Cooper, S. Brouwer, A. V. Turnbull, G. N. Luheshi, S. J. Hopkins, S. L. Kunkel, and N. J. Rothwell* R1431
- 5, 4, 7** Localization and analysis of natriuretic peptide receptors in the gills of the toadfish, *Opsanus beta* (teleostei)  
*J. A. Donald, T. Toop, and D. H. Evans* R1437
- 10, 7, 2** The nocturnal increase in human cerebrospinal fluid production is inhibited by a  $\beta_1$ -receptor antagonist  
*C. Nilsson, F. Ståhlberg, P. Gideon, C. Thomsen, and O. Henriksen* R1445

- 7, 12 Plasma volume conservation in pigeons: effects of air temperature during dehydration  
*N. Carmi, B. Pinshow, and M. Horowitz* R1449
- 4, 7 Renal effects of nitric oxide synthesis inhibition in cirrhotic rats  
*N. M. Atucha, J. García-Estañ, A. Ramírez, M. C. Pérez, T. Quesada, and J. C. Romero* R1454
- 5, 10 Circadian and ultradian rhythms of peripheral prolactin concentrations in lactating dairy cows  
*A. M. Lefcourt, R. M. Akers, D. L. Wood, and J. Bitman* R1461
- 4, 7 Chronic and selective vasopressin blockade in spontaneously hypertensive rats  
*H. Okada, H. Suzuki, Y. Kanno, Y. Yamamura, and T. Saruta* R1467
- 4, 7 Interaction between angiotensin II and nitric oxide in control of renal hemodynamics in conscious dogs  
*A. M. Alberola, F. J. Salazar, T. Nakamura, and J. P. Granger* R1472
- 3, 11, 1 Fetal hiccups in the baboon  
*R. I. Stark, S. S. Daniel, M. Garland, J. C. Jaille-Marti, Y.-I. Kim, K. Leung, M. M. Myers, and P. J. Tropper* R1479
- 1, 5, 8 GLUT3 glucose transporter isoform in rat testis: localization, effect of diabetes mellitus, and comparison to human testis  
*C. F. Burant and N. O. Davidson* R1488
- 9 Cholecystokinin reduces sucrose palatability in rats: evidence in support of a satiety effect  
*L. A. Eckel and K.-P. Ossenkopp* R1496
- 2, 4 Insulin resistance and hypertension: studies in transgenic hypertensive TGR(mREN-2)27 rats  
*R. Vettor, I. Cusin, D. Ganten, F. Rohner-Jeanrenaud, E. Ferrannini, and B. Jeanrenaud* R1503
- 1, 11 Ventilatory and metabolic responses to hypoxia in the echidna, *Tachyglossus aculeatus*  
*P. B. Frappell, C. E. Franklin, and G. C. Grigg* R1510
- 4, 7, 5 Hormonal, renal, and metabolic alterations during hypertension induced by chronic inhibition of NO in rats  
*J. Navarro, A. Sanchez, J. Sáiz, L. M. Ruilope, J. García-Estañ, J. C. Romero, S. Moncada, and V. Lahera* R1516
- 7, 4 Hydrops fetalis in nephrectomized fetal lambs infused with angiotensin I  
*J. J. Faber and D. F. Anderson* R1522
- 1, 12 Blood and brain temperatures of free-ranging black wildebeest in their natural environment  
*C. Jessen, H. P. Laburn, M. H. Knight, G. Kuhnen, K. Goelst, and D. Mitchell* R1528
- 9 Effects of glucose and fructose solutions on food intake and gastric emptying in nonobese women  
*J. L. Guss, H. R. Kissileff, and F. X. Pi-Sunyer* R1537
- 1, 2, 4 Nifedipine inhibits adrenal but not circulating catecholamine response to nicotinic stimulation in dogs  
*R. Gaspo, N. Yamaguchi, and J. de Champlain* R1545
- 2, 4 Muscarinic inhibition of cardiac norepinephrine and neuropeptide Y release during ischemia and reperfusion  
*A. Haunstetter, M. Haass, X. Yi, C. Krüger, and W. Kübler* R1552
- 2, 3 Stress-induced norepinephrine release in the rat prefrontal cortex measured by microdialysis  
*H. Nakane, N. Shimizu, and T. Hori* R1559
- 4 Seasonal and temperature-induced changes in myosin heavy chain composition of crucian carp hearts  
*M. Vornanen* R1567
- 6, 11 Validation of the doubly labeled water method in growing pigs  
*P. Haggarty, M. F. Franklin, M. F. Fuller, B. A. McGaw, E. Milne, G. Duncan, S. L. Christie, and J. S. Smith* R1574
- 9, 3 Does the histaminergic system mediate bombesin/GRP-induced suppression of food intake?  
*Z. Merali and K. Banks* R1589

- 2, 12** Comparison of acute phase responses induced in rabbits by lipopolysaccharide and double-stranded RNA  
*M. Kimura, L. A. Toth, H. Agostini, A. B. Cady, J. A. Majde, and J. M. Krueger* R1596
- 5** Insulin and Na-dependent alanine transport in skeletal muscle of obese Zucker (fa/fa) rats  
*P. A. King and J. J. Betts* R1606
- 4, 7** Pregnant rats are refractory to the natriuretic actions of atrial natriuretic peptide  
*S. Masilamani, L. Castro, and C. Baylis* R1611
- 7, 5** Pathogenesis of hyponatremia in an experimental model of the syndrome of inappropriate antidiuresis  
*J. G. Verbalis* R1617
- 5, 3** Stimulation of oxytocin release within the supraoptic nucleus and into blood by CCK-8  
*I. Neumann, R. Landgraf, Y. Takahashi, Q. J. Pittman, and J. A. Russell* R1626
- 4, 2** Dopamine or transmitter release from rat carotid body may not be essential to hypoxic chemoreception  
*M.-K. Sun and D. J. Reis* R1632
- 4, 5, 7** Dissociation between vasopressin and oxytocin mRNA and peptide secretion after AV3V lesions  
*M. Morris, M. J. A. Rocha, L. J. Sim, A. K. Johnson, and M. F. Callahan* R1640

---

#### RAPID COMMUNICATIONS

- 12, 7** Temperature gradient osmometer and anomalies in freezing temperatures  
*A. Arav and B. Rubinsky* R1646
- 1, 5, 7** CNP is present in canine renal tubular cells and secreted by cultured opossum kidney cells  
*A. Nir, K. W. Beers, A. L. Clavell, C.-M. Wei, D. M. Heublein, T. P. Dousa, and J. C. Burnett, Jr.* R1653

---

*Subject Index to Volume 36*  
*Author Index to Volume 36*

R1659  
R1669

